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ABSTRACT

This training manual on emotional responses to disaster is designed for use by mental health professionals in the training of emergency medical teams whose job is to immediately respond to both large- and small-scale disasters. It is noted that members of these teams are usually not mental health professionals, but they must deal with a range of intense emotions in addition to a range of physical problems. The goal of this manual is to present basic concepts in understanding disaster-related behaviors, to explain phases of such behaviors, and to outline postdisaster intervention strategies for mental health problems. The pamphlet is divided into these sections: (1) basic concepts in understanding disaster behavior, focusing on stress resulting from the crisis, social supports at the time of the crisis, and coping skills of the individual victim; (2) phases of disaster-related behaviors, illustrated by a table listing typical reactions to stress for preschoolers, latency age children, preadolescents and adolescents, adults, and senior citizens; and (3) postdisaster intervention strategies for mental health problems in the acute phase, including special mental illness, drug abuse, and alcohol problems and disaster worker stress. (Author/ABL)

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National Institute of Mental Health

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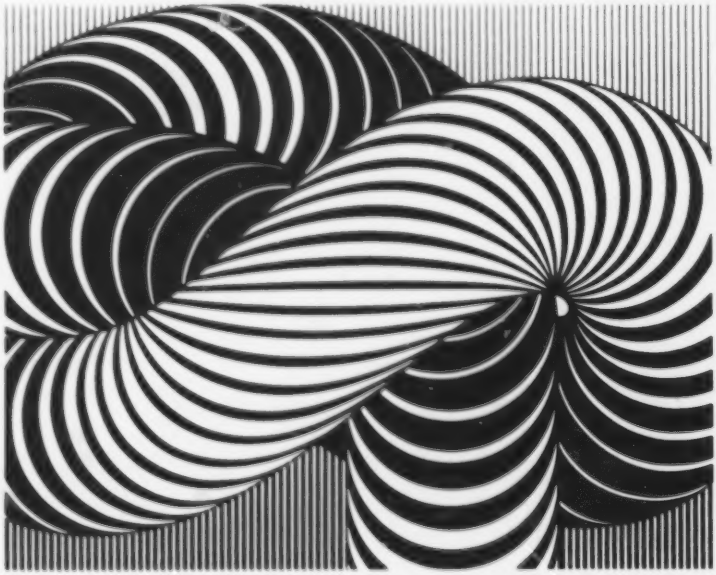

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

Human Problems in Major Disasters:

A Training Curriculum for Emergency Medical Personnel

Prepared by
Division of Education and Service Systems Liaison
Emergency Services Branch

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Foreword

This training manual on emotional responses to disaster is designed for use by mental health professionals in the training of emergency medical teams whose job is immediate response to both large- and small-scale disasters. Members of these teams are usually not mental health professionals, but they must deal with a range of intense emotions in addition to a range of physical problems. The goal of the manual is to present basic concepts in understanding disaster-related behaviors, to explain phases of such behaviors, and to outline postdisaster intervention strategies for mental health problems. A full day should be allowed for the training, with half the time spent in question and answer discussions.

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Overview

Mental health intervention in post-traumatic responses of victims following a disaster is designed to assist the victims in maximizing their coping and adaptation skills to effectively deal with multiple problems arising in the postdisaster situation.

It is widely assumed that most victims were functioning adequately before the catastrophe, but that their ability to cope may have been impaired by the stresses of the situation. Victims are unlikely to view themselves as exhibiting psychopathology even if they are experiencing stress-related symptoms. The treating professional should resist the temptation to view the victim as being psychopathological until such a diagnosis is clearly established. Disaster victims may include all ages, socioeconomic classes, and racial or ethnic groups because catastrophes affect the entire population in an impacted area.

Research findings confirm that large-scale natural disasters can result in severe mental health problems, including substance abuse, for about 10 percent of victims. Some victims suffer more than others, depending upon several interrelated factors. Those who may be particularly susceptible to physical and psychological reactions from a disaster include people who:

- are vulnerable from previous traumatic life events
- are at risk because of recent ill health
- experience severe stress and loss
- lose their system of social and psychological supports
- lack coping skills

The frail elderly in general may find it difficult to cope with disaster and its consequences. It is not unusual to find older victims who are isolated from their support systems and live alone. As a result they are often afraid to seek help. Typical postcatastrophe problems with this group are depression and a sense of hopelessness. Unfortunately, a common response among some frail elderly people is a lack of interest in rebuilding their lives.

Children are a special group because they usually do not have the capacity to understand and rationalize what has happened. Consequently, they may present emotional and behavioral problems at home or at school. Perhaps the most prominent disturbances reported in children after a disaster have been phobias, sleep disturbances, loss of interest in school, and difficult behavior.

Those with a history of mental illness may also require special attention. Under the stress of a disaster situation, relapses may occur in this population due to the additional stress or the difficulties in obtaining regular medication.

In sum, although the particular at-risk groups identified merit close attention from the disaster worker, victims can be found among all social, economic, and ethnic strata, and among all segments of the population in the disaster area. The task then is to identify those who need special help in order to provide such help quickly and effectively, and to deal sensitively with all victims realizing that they are under emotional strain.

Special attention must also be given to the disaster workers themselves, including medical personnel, who face unprecedented personal demands in meeting the needs of victims. They too may experience fatigue, fear, anger, and acute stress reactions. They need organizational and coworker support to function with competence and sensitivity throughout the course of the emergency.

I. Basic Concepts in Understanding Disaster Behavior

The key constructs used to understand how individuals respond to disaster include *stress* resulting from the crisis, *social supports* at time of crisis, and *coping* skills of the individual victim. Each is discussed in turn.

- Some of the most significant work about individual response to disaster comes from theoretical formulations about *stress*. Dohrenwend and Dohrenwend (1981) linked stressful life events, mediated by social situations and personal dispositions, to health and mental health consequences for individuals. The authors offered several interpretations about these linkages. One interpretation is straightforward cause and effect: stressful life events result in adverse health changes. Other interpretations concern the intensification of stressful life events by social and personal dispositions; these combinations of factors result in adverse health change.

  Several theories relate stress to specific disaster situations, focusing on the event itself, and on individual, social, and cultural responses to such

emergencies. Frederick (1980) and others theorized that technological disasters create more mental stress than do natural disasters because they are defined, not as originating from God, but as originating from man. Other theoreticians considered the phases of a disaster. Baker (1964) differentiated between more frequent immediate psychological effects of the disaster experience and less frequent long-term consequences of disaster for the individual. Others looked at the magnitude of the disaster. Kastenbaum (1974), for example, hypothesized a significant difference between disasters that affect the individual's whole environment and those that affect only a part of it.

- Human service workers have little control over factors in the environment that cause stress among clients. Their efforts, thus, are focused on increasing the social supports and coping skills of these persons so that they are better equipped to manage the stress and are less at risk for emotional problems. With regard to *social supports*, Taylor (1978) showed the importance of political, economic, and family interactions and supports in disasters. Political supports referred to functions served by public figures at disaster sites. Economic supports were defined as financial institutions that provide funds in aid of recovery of the community. Family supports referred to the functioning of family members in warning system evacuation and extended family assistance.

  Barton (1969) pointed to the existence of a two-part emergency social system. The first part is identified by exploring individual patterns of adaptive and nonadaptive reactions to stress, particularly the motivational basis of various types of helping behavior (e.g., altruism and close relationship to the victim). Barton concluded that discrete patterns of individual behavior can be conceptually aggregated to reflect the community's informal mass assault on disaster-generated needs. The second part of the system is the community's formal organization. Barton broadened his initial discussion of the individual basis of helping behavior by examining a community model of the same.

- Formulations that relate individual *coping* responses to mass disasters focus on perception, personality characteristics, and social behaviors. Slovic et al. (1979) looked at the perception of risk in disaster situations. They stated that those persons who perceive the risk as great are more likely to heed warnings and to take some

individual action to avoid or ameliorate consequences than those who do not. In the case of technological risks, those who perceive the risk as great are also more likely to blame the Government for politics that allow the risk to occur.

Cohen and Ahearn (1980) pointed out that coping is partially dependent on emotional or psychological tools, those personal characteristics of individual strengths and weaknesses. These individual resources include ability to communicate, sense of self-esteem, and capacity for bearing discomfort without either disorganization or despair.

Lystad (1985b) stated that coping also depends upon one's ability to seek support, understanding, and aid in problem resolution. Her work shows that disaster victims are better able to handle the losses of loved ones and property if they are well integrated into a social matrix of family, friends, and neighbors who are able to provide immediate assistance of comfort, food, clothing, housing, and physical care at times of crisis.

II. Phases of Disaster-Related Behaviors

The experiences of mental health professionals have shown that the postdisaster period consists of several phases related to the emotional responses of victims as they experience and cope with crisis (see Cohen and Ahearn 1980; Farberow 1983).

- The first phase occurs at time of impact and immediately afterwards. Emotions are strong and include fear, numbness, shock, and confusion. People find themselves being called upon and responding to demands for heroic action to save their own and others' lives and/or property. Altruism is prominent, and people cooperate well in helping others to survive and recover. The most important resources during this phase are the family, neighbors, and emergency service workers of various sorts.
- The second phase of disaster generally extends from one week to several months after the disaster. Symptoms include change in appetite, digestive problems, difficulties in sleeping, and headaches. Anger, suspicion, and irritability may surface. Apathy and

Mental health disaster workers have noted age-specific reactions of individuals to disaster (NIMH, 1983; Lystad, 1985a). These reactions to stress may appear immediately after the disaster or after the passage of days or weeks. The following composite list is not all inclusive

Preschool Reactions	Latency Age Reactions	Preadolescent and Adolescent Reactions	Adult Reactions	Senior Citizen Reactions
Crying	Headaches, other physical complaints	Headaches, other physical complaints	Psychosomatic problems, such as ulcers and heart trouble	Depression, withdrawal
Thumb-sucking	Depression	Depression	Withdrawal, suspicion, irritability	Apathy
Loss of bowel/ bladder control	Fears about weather, safety	Confusion	Anger	Agitation, anger
Fear of being left alone, of strangers	Confusion	Poor performance	Loss of appetite	Irritability, suspicion
Irritability	Inability to concentrate	Aggressive behaviors	Sleep problems	Disorientation
Confusion	Poor performance	Withdrawal and isolation	Loss of interests in everyday activities	Confusion
Immobility	Fighting	Changes in peer group, friends		Memory loss
	Withdrawal from peers			Accelerated physical decline
				Increase in number of somatic complaints

depression may occur, as well as withdrawal from family and friends and heightened anxiety about the future. On the other hand, survivors, even those who lost loved ones and possessions, develop a strong sense of having shared with others a dangerous experience. During this phase, supported by the influx of local, State, and Federal

agencies who offer all kinds of help, the victims clear the debris and clean out their homes of mud and wreckage. They anticipate that considerable help in solving their multiple problems will soon be available. Community groups that develop from the specific needs caused by the disaster are especially important.

- The third phase of the disaster, generally lasting up to a year, is characterized by strong feelings of disappointment, resentment, and bitterness if delays occur and hopes for, and promises of, governmental aid are not fulfilled. Outside agencies may pull out, and some of the indigenous community groups may weaken or disappear. During this phase, victims may gradually lose the feeling of shared community found earlier as they concentrate on solving their own individual problems.
- The last phase, reconstruction, may last several years if not the remainder of the lives of some victims. During this time the victims of large-scale disasters realize that they will need to solve the problems of rebuilding their homes, businesses, and lives largely by themselves, and they gradually assume responsibility for doing so. The appearance of new buildings replacing old ones, the development of new programs and plans, can serve to reaffirm the victims' belief in their community and their own capabilities. When such positive events are delayed, however, emotional problems which do appear may be serious and intense. Community groups — political, economic, religious, fraternal — with a long-term investment in the community and its people become crucial elements to successful reconstruction.

III. Postdisaster Intervention Strategies for Mental Health Problems: Acute Phase

General

1. Dealing with extreme emotional stress caused by the emergency:

The symptoms of extreme stress reactions include clear signs of fear, anxiety, disorganized speech, and the inability to be consoled or quieted down. A mild sedative should be used, accompanied by an attempt to find a "victim-companion" to help for a limited time. Most acute, severe

reactions are short-lived when the victim is surrounded by other individuals in similar situations who offer role models with good coping skills to deal with the present situation. If the victim has received a physical trauma, then the reactions will have to be evaluated in terms of pain dependence, fear of abandonment, and central nervous system functional status as a reaction to trauma and/or medication.

2. Relocation factors likely to increase/reduce stress:

One of the most painful experiences for a victim is a sense of disorientation and lack of control in his life. This experience is aggravated by the further relocation activities that most victims find necessary. The process of preparing, supporting, and assisting the victims in all location changes can intensify or ameliorate their discomfort. Consideration of the fears, anxiety, and lack of knowledge about the "authorities" who are doing all the discussing and making all the decisions will guide professionals in their behavior. Any support or information that can be given to the victims to enhance their sense of control over their choices, which in turn will moderate their anxiety and elevate their self-esteem, will be helpful. Keeping closer to their support systems — friends, clergy, and family — will be beneficial for recovery of psychological health. Communicating to the victim information concerning imminent changes will also help.

3. How to lessen the stress of hospital setting and relocation:

Starting with the premise that people housed in a hospital setting have been relocated and may face further relocations, it follows that some effects of the stressors will be manifested by psychophysiological reactions. Lessening the stressor impact on these populations at risk is the objective of planners and disaster workers. Two major areas are important: (1) reactions to the event itself, including the rescue, and (2) reactions to hospital conditions.

With regard to the first source of stress, helping victims share their stories and ventilate some of their pent-up tensions is very valuable. With regard to the second source of stress—the living conditions in the hospital—some flexibility could be instituted by providing information about their physical status, prognosis, plans of care, and guidance and support in relation to schedules of medical intervention. Daily bulletins with clear information and methods for dealing with rumors about what has happened to their neighborhood are helpful.

Identification of problemsolving hospital teams that can expedite

simple requests or explain to victims when some of their problems cannot be solved or attended to immediately is useful. This type of education can diminish expectations that could, if unchecked, culiminate in further painful disappointments. Most victims would prefer to be busy, active, and helpful, so functions that realistically could be assigned to them will prove to be morale boosting. Household and clerical tasks, organization of recreational activity, and group exercises are examples.

Personnel trained to absorb painful, emotional, angry expressions of distress without reacting personally and becoming defensive, or without promising immediate solutions, are a most valuable resource in lowering effects of the stressor and mitigating victims' reactions.

4. Guidelines for the use of psychotropic medication with disaster victims:

Basic medical precautions are needed when prescribing medication to victims. In general, the approach should be conservative in dealing with anxiety and psychophysiological reactions (headaches, stomachaches, and sleeplessness), which are the primary manifestations during the first few days. Although the victim may wish to short-circuit very uncomfortable emotions, some consideration should be given to first trying some reassurance and counseling, with attention to the living conditions, to test if the anxiety ameliorates without medication. If this does not happen, and psychological efforts are ineffective or the anxiety is overwhelming, then anxiolytic medication may be necessary.

Medication for pain should be provided as needed. Pain itself is a major cause of stress.

Appropriate medication should be used for individuals with a history of severe mental disorder, for example those diagnosed as suffering from schizophrenia, who are living in the community; also, patients with dysthymic disorders (mania or depression).

Medication usage has to be continually monitored as victims' judgement may occasionally become dysfunctional.

5. How to mobilize social support systems after an emergency:

An outpouring of interest and resources is characteristic of individuals in the community during and after a disaster's aftermath. The problem of support systems is not the quantity, but the quality. That is, the appropriate fit between the needs of the victim (age, sex, culture, socioeconomic status, health, etc.) and the presence of interested, available human support groups. The matching of assistance to victims has

to be organized in some professional manner, which could be flexible and simple, but with genuine and serious attention to motivation, consistency, and appropriateness.

Many organized groups exist in different regions of the United States whose objectives are to assist individuals in crisis. Also, religious groups are available from the different denominations if the victims ask for special religious affiliation.

A list of available groups could be identified on regional bases. The informational support groups (nonfamily), while generally generous and enthusiastic, may need some management and organization to genuinely assist the victim.

6. How to coordinate with mental health professionals:

Ideally, predisaster planning at the State level should incorporate mental health components in emergency operations. A direct line of communication to mental health professionals potentially available for disaster work should be already established. When this is the case, once the decision to participate and the plan of action is in effect, mental health professionals can assist in the triage operations, in crisis counseling, and in debriefing of disaster workers. To smoothly coordinate all these efforts the administrative design should include the mental health professional in decisionmaking, logistics, schedules, and function priorities. When this is not the case, local community mental health centers and mental health associations should be contacted for assistance.

7. Use of mental health professionals in the initial postdisaster period—how they can assist in triage:

Disaster triage operations are the procedures used by mental health professionals to evaluate behavior, ascertain level of crisis, and supply information. This knowledge is provided to the assisting team so that disaster planning can alleviate the severity of the psychophysiologic reaction of victims. Since victims become cognitively and emotionally impaired for a short interval of time, intervention focuses on increasing awareness of the emotional effects of disaster and improvement of the ability to cope.

The mental health professional has begun to enhance the disaster emergency efforts by bringing knowledge that is needed to deal with behavior patterns not only of the victim but of the helpers as well. The knowledge base of mental health professionals working side by side with medical teams is continually increasing as more begin to practice at a field level.

8. Use of mental health professionals in the initial postdisaster period—

how they can assist in crisis counseling to victims:

Postdisaster crisis counseling is a mental health intervention technique that seeks to restore the capacity of individuals to cope with and resolve stressful situations as well as to provide assistance for individuals in reordering and integrating their new circumstances. This is accomplished by a process of education about and interpretation of the overwhelming feeling which results from postdisaster stress; it is designed to instill a greater sense of self confidence and hope.

Postdisaster intervention, a new area of applied psychiatry, offers a unique model for mental health services by broadening the perspective of service providers and offering the possibility of a resolution to crisis reactions for victims. To be effective, however, the mental health component of the intervention program must prove useful to the victims and comfortable for the community service providers.

9. Use of mental health professionals in the initial postdisaster period—how they can assist in debriefing disaster workers:

A mental health debriefing is an organized approach to the management of stress responses following a traumatic or critical incident. It is a specific, focused intervention to assist workers in dealing with the intense emotions that are common at such times. It teaches them about normal stress responses, specific skills for coping with stress and providing support for each other. A debriefing involves a one-to-one or group meeting between the worker(s) and a trained facilitator. Group meetings are recommended, as they provide the added dimension of peer support.

A debriefing is not a critique. A critique is a meeting in which the incident is discussed, evaluated, and analyzed with regard to procedures, performance, and what could have been improved. A critique is a valid and important meeting. It can help workers to sort out facts, get questions answered, plan for what to do in the future. A debriefing though has a different focus, that of dealing with the emotional aspects of the experience.

10. Use of mental health professionals in a later postdisaster period—how can they help in long-term referrals of victims or disaster workers:

Although most disaster victims do not suffer adverse mental health effects, a conservative estimate is that 10 percent experience mental health consequences over time. Larger percentages are found in disasters that

are sudden and unexpected, where many deaths and injuries occur, when the potential for recurrence is higher, and where the affected population is high risk. Mental health professionals can evaluate those individuals who continue to appear emotionally stressed and unable to cope in order to refer them to appropriate community mental health facilities for longer term care.

Special Mental Illness, Drug Abuse, and Alcohol Problems

1. How to identify the mentally ill:

Individuals suffering from a diverse variety of mental illnesses present differing reactions to the many stressors following the consequences of a disaster. Three major categories will need attention.

(a.) *Individuals living in hospitals situated in the damaged or physically unapproachable areas.* Problems in their daily living arrangements have resulted from lack of availability of electricity, water, food, medical care, and/or nursing staff.

(b.) *Individuals living in group homes.* These individuals may be affected by losing their homes or not having medication available. Their habitual structured surroundings may be altered, and the loss of a familiar setting may increase the acuteness of their emotional reactions.

(c.) *Individuals living with their own or foster families.* These individuals also may have increased symptoms due to factors the same as those noted in Item b. above.

If these individuals are found after the disaster accompanied by a helping familiar adult (for example, a foster parent), it may not be difficult to ascertain the diagnosis and the medication needed. If the individual is discovered alone, then the signs of disturbance in cognition, life disorientation, and bizarre communication (severe difficulty in explaining who he/she is and what has happened) will identify an individual that needs special attention. Also, an individual that cannot understand commands or suggestions to follow certain simple, life-preserving actions will need individual monitoring. It is always necessary to rule out any undiagnosed head injuries during the disaster that may cause similar symptoms.

2. How to differentiate between those suffering from acute stress and those who are mentally ill:

Individuals who behave inappropriately for the situation should be given a rapid evaluation to sort out the following:

(a.) intense stress reaction

(b.) acute psychotic reaction

(c.) effect of head injuries

(d.) disorganization of functions in a mentally retarded individual

Those four conditions are accompanied by several signs that differentiate them:

(a.) Stress reactions are manifested by changes in (1) cognition-orientation—poor memory, thinking changes, varying difficulty in making a decision, and (2) emotions — lability, blunting, flatness. There is no break with reality awareness or loss of self-identity. The person behaves with a certain social composure and relates in a passive way during the acute stage.

(b.) Acute psychotic reactions occur as *anxiety*, *affective*, or *thinking* disorders. In general, diagnosed psychiatric patients are subdued and calmer than usual when they are faced with emergency situations. A number of individuals may have psychotic breaks if they suffer severe and prolonged trauma. Their behavior could include apathetic, depressed, or bizarre thinking; difficulty in understanding the routine of the shelter/hospital; and/or hyperactive, manic, unrealistic, and difficult-to-control behavior.

(c.) The effects of head injuries can mimic many psychiatric symptoms, but a careful neurological exam may elicit localized signs of trauma. This diagnosis should be ruled out whenever a severe, acute clinical picture emerges that indicates mental disorganization.

(d.) Mentally retarded individuals show more infantile behaviors, have simple and concrete speech, and slowness in understanding orders or suggestions. They may manifest disorganized and disoriented behavior due to the sudden changes in their routines. Their expression of this new experience may include anxiety and infantile clinging behavior, which is alleviated by simple orders, support, and guidance.

3. What to do to assist the mentally ill:

A large number of mentally ill patients are dependent on psychotherapeutic pharmacological treatment. Obtaining information about their regimen should be one of the first priorities. This should be followed by an attempt to structure their schedules and to remove them from intense stimuli situations, if at all possible. Using other victims to assist the mentally ill patient in basic daily living activities may benefit both of them.

4. Some of the common medication regimens that people might be on:

Psychotropic medication is prescribed for different types of mental disorders. The three most

common medications are antipsychotics—for example, in schizophrenic syndromes; antidepressants—for example, in minor and major depressive disorders; and lithium for bipolar illness. Most patients know about their medication and would respond to inquiry in this regard.

If these medications are unavailable, one or more of the following might be used during a short, transition period: (a) antianxiety medication; (b) chloral hydrate; or (c) mild barbiturates. Someone will need to ascertain the differences between toxic reactions to a specific drug and symptoms reappearing due to decrease in a patient's medication in the bloodstream.

Toxic reactions to antipsychotic drugs are varied. They include neurologic and hepatic effects in chronic cases. In the intitial period, one can observe drowsiness, or restlessness (akathisia), orthostatic hypotension, occasional bizarre involuntary movements, stiffness with difficulty moving, distortions of body positioning produced by changes in muscle tone, anticholinergic effects like mild dryness of the mouth, or tachycardia.

5. How to identify the drug addict:

Behavioral disturbances are frequent consequences of drug intoxication and result from affective and cognitive disturbances with variable reality contact. As with most drug reactions, symptoms are usually nonspecific. Disruption of the rest-activity cycle is often part of the overall picture of drug addiction and withdrawal. These disturbances may range from insomnia or fragmented sleep accompanying stimulant intoxication or sedative-hypnotic withdrawal to hypersomnia accompanying stimulant withdrawal or sedative-hypnotic intoxication. Physical signs of drug addiction may include needle tracks, subcutaneous abscesses, or eroded or irritated nasal septum with rhinorrhea (running nose). Acute panic or paranoid reaction may follow the administration of psychotomimetic agents (LSD, STP, mescaline, etc.), an amphetamine or cocaine in high doses, or marijuana. Adverse reactions to LSD are often characterized by an extremely labile affective component, one affect shifting abruptly to another, with the user in the grips of a "runaway" experience. Few physiological changes other than mydriasis (large pupils) are seen in LSD intoxication, except those induced by emotional stress.

The clinical picture of amphetamine intoxication includes sweating, tachycardia, elevated blood pressure, mydriasis, hyperactivity, and

an acute brain syndrome with confusion and disorientation. A progressive organic brain syndrome accompanies long-term amphetamine abuse. Moderate overdose of an amphetamine or cocaine may induce paranoid delusions of persecution with dangerous assaultive behavior. Aggressive behavior of lesser proportions may accompany the brain syndrome induced by alcohol or barbiturates in high doses, but rarely if ever characterizes opiate intoxication, which leaves the user in a placid state of drive satiation.

Convulsive seizures may be the direct result of intoxication with amphetamines, methylphenidate, propoxyphene, codeine, methaqualone, strychnine, or LSD. Concurrent withdrawal of a barbiturate, alcohol, or some nonbarbiturate sedatives taken in high doses would enhance the likelihood of seizures.

6. Psychophysiological signs of addictive drug intoxication or overdose, by type of drug:

Central Nervous System Stimulants:

Systemic effects (those affecting the entire body) include:

(1) increased cardiac contraction

(2) increased blood pressure

(3) increased heart rate

(4) relaxation and dilatation of respiratory bronchioles

(5) increased venous pressure

(6) increased pulmonary arterial pressure

(7) increased respiratory rate

(8) increased renal blood flow

(9) increased contracture of urinary sphincter musculature

(10) appetite suppression

Central Nervous System Depressants:

Intoxication often presents itself as a decreased level of alertness, perhaps bordering on sleep. There is difficulty in arousability, increased reaction time, and accompanying cognitive problems. With opiate intoxication, miosis (small pupils) is usually evident.

Stupor or coma caused by depressant drug poisoning presents the characteristic picture of severe metabolic brain disease. Ultimately, respiratory and circulatory functions are compromised. When this occurs, treatment is essential or death will follow.

The combination of unresponsiveness, preserved or sluggish pupillary reactions, absent oculo-vestibular reactions, motor areflexia, hypothermia, and depression of respiration and circulation is clinically diagnostic of sedative-anesthetic drug poisoning.

Psychotomimetics:

Central sympathomimetic stimulation occurs within 20 minutes after ingestion. The clinical findings may include:

(1) mydriasis (widening of pupils)

(2) hyperthermia

(3) tachycardia

(4) elevated blood pressure

(5) piloerection (hair raised on body)

(6) increased alertness

(7) facilitation of monosynaptic reflexes

(8) nausea and vomiting

(9) heightened perceptions which may become overwhelming

(10) prolonged afterimages which may overlap with ongoing perceptions

(11) perception of objects as moving in a wavelike fashion, or melting

(12) illusions and synesthesias, the overflow of one sense modality to another

(13) a sense of unusual clarity and a feeling that one's thoughts are extraordinarily important

(14) a feeling of slow passage of time

(15) body distortions

(16) true hallucinations with loss of insight

(17) wide range in affect or mood

(18) panic reactions

7. Characteristics of drug withdrawal, by type of drug:

Much misunderstanding has centered around the subject of drug withdrawal. It is true that some drugs in high doses induce serious physical dependence (opiates, barbiturates, ethanol, antianxiety agents) and other induce little if any physical dependence (marijuana, amphetamines, cocaine, antipsychotic agents). It is untrue, however, that withdrawal of a drug producing physical dependence is necessarily more dangerous or difficult than withdrawal of one that does not. Withdrawal of opiates or barbiturates is completely safe if accomplished gradually; withdrawal of amphetamines and often cocaine, on the other hand, is often dangerous no matter how it is accomplished because of psychic depression with suicidal ideation.

Physical dependence, as indicated by abstinence signs and symptoms, develops from all central nervous system general depressants. A characteristic, general depressant withdrawal syndrome occurs and is similiar to the symptoms of withdrawal from alcohol. It varies in severity, depending on the drug, dose,

and frequency of use. In contrast to the opioid withdrawal syndrome, withdrawal from depressants may be life-threatening.

Symptoms accompanying drug withdrawal are both physical and psychological. In the case of opiates and barbiturates, the physical symptoms are fairly constant from individual to individual and characteristic of the class of drugs, so that specific "abstinence syndromes" may legitimately be described. The most characteristic signs of opiate withdrawal are anxiety, restlessness, and drug craving after several hours since last use. After 8-15 hours since last use lacrimation (running eyes), rhinorrhea, moderately dilated and reactive pupils, yawning, and perspiration appear. After additional hours since last use comes restless sleep, the so-called "yen sleep," after which the addict awakens with more severe withdrawal symptoms and signs including dilated pupils, sneezing, sniffles, anorexia, nausea, vomiting, abdominal cramps, bone pains, tremors, weakness, insomnia, piloerection ("gooseflesh," responsible for the expression "cold turkey"), and very rarely, convulsions or cardiovascular collapse. If convulsive seizures (which are not characteristic of opiate withdrawal) occur, it is assumed that the patient was also taking barbiturates, either knowingly or unknowingly (e.g., as an adulterant on his heroin supply).

Barbiturate withdrawal, as an example of the general depressant withdrawal syndrome, is characterized by early tremulousness, extreme motor restlessness, and insomnia, followed by an acute brain syndrome with confusion and disorientation. Convulsive seizures are a serious risk during the entire withdrawal period unless withdrawal is accomplished slowly over 1 to 2 weeks. Especially with antianxiety agents, longer term withdrawal effects recurring intermittently for months past the cessation of usage include disturbances in the rest-activity cycle and affective lability.

Withdrawal from high doses of amphetamines and cocaine is characterized by lethargy, somnolence, and psychic depression, often severe. An organic brain syndrome overlies the other symptoms and may resolve slowly over the ensuing months; it results from the insult of chronic unremitting stimulation by high doses of amphetamine and is manifest by lessened mental acuity, impaired recent memory, shortened attention span, and increased emotional lability.

8. What acute medical measures should be taken for acute drug reaction (see also Shader, 1975):

Definitive diagnosis of an acute drug reaction is often difficult. As with any disease, the reaction to a drug (or drugs) depends upon a number of variables, including: (1) the type of drug use, (2) its purity, (3) its dosage, (4) the presence of contaminants, (5) the duration of time since the drug was taken, (6) underlying medical or psychological problems, (7) the degree of tolerance, if any, having developed in the individual toward that drug, (8) the chronicity of prior use, and (9) the utilization of multiple drugs.

The first step needed to deal with a victim experiencing drug withdrawal is, when possible, to obtain a history of drug use and, particularly, identification of the drug(s) from which the individual is withdrawing. Withdrawal from narcotic drugs such as heroin, morphine, and other synthetics with morphine-like actions will produce acute discomfort. Withdrawal from sedatives or hypnotics may produce life-threatening situations and require ongoing medical management and supervision. Common sedatives are benzodiazepines such as chlordiazepoxide (Librium), diazepam (Valium), oxazepam (Serax), and meprobamate (Miltown, Equanil).

Common hypnotics include ethchlorvynol (Placidyl), flurazepam (Dalmane), temazepam (Restoril), triazolam (Halcion), glutethimide (Doriden), methyprylon (Noludar), chloral hydrate (Noctec), methaqualone (Qualudes), and barbiturates (phenobarb and others).

It should be noted that cross tolerance exists within each of the drug groups noted above. In addition, while narcotic drugs present rapid withdrawal onset, late onset (from 6 to 7 days) is more characteristic of other drug groups.

9. What to do about alcohol abuse after the emergency:

Individuals who are addicted to alcohol will show signs of withdrawal if they have no access to alcoholic beverages. Unless the abuse has been chronic and severe, these individuals will show differing signs of central nervous system irritability and general discomfort but will "weather" the acute stage of the postdisaster period. If the behavior is dysfunctional, the individual will present a problem to the management personnel of the shelter.

To assist the individual who shows disorganized and dysfunctional behavior, the use of medication (chlordiazepoxide) and a structured schedule can be instituted. Generally, these individuals are difficult in a passive-aggressive manner instead of actively and aggressively disrupting the living areas.

10. Signs of alcohol withdrawal:

(a.) Mild or early symptoms (impending DT's—delirium tremens) can appear in the first week after the last drink. All of the body's systems are affected: gastrointestinal, muscular, central nervous system, vegetative (sleep), and general psychological and behavior patterns.

(b.) Advanced or severe manifestations can be seen in victims who had early symptoms. The emergence of increased irritability, severe tremulousness, and auditory hallucinations may be indications of imminent DT's.

11. What to do about antisocial behavior patterns in emergency situations:

Antisocial behavior is defined as the intrusive manner in which individuals clash with the norms of the community in which they live. The victims of disaster are suddenly and painfully congregated into a disparate and unfamiliar setting. The behaviors that emerge as they try to cope and adapt could be defined by the authority group as being "antisocial" because these individuals (1) break rules; (2) never seem to accept schedules; (3) refuse to take their turn to deal with helpers; and (4) in general, become identified as "troublemakers" who may also steal and lie. How to diagnose these behaviors and sort out which are motivated by anxiety and which by character disorders challenges the skills of the most seasoned mental health professional.

During the emergency stage, the diagnostic procedure has to be rapid, and thus it may be difficult to ascertain the motiviating emotions supporting antisocial behavior. The best approach is to exert increasing limit-setting to the disruptive actions practiced by the individual.

Victims who act out because of anxiety will experience relief if structure and support are provided. They will express mortification, guilt, and will verbalize some of their fears. With individuals whose general modality of dealing with their environment is aggressive, self-centered, and nonempathetic, the need for stronger measures, including segregation from the group, may be necessary until more individual measures are available. Antisocial behavior cannot be tolerated if victims are in a medical setting.

12. Example of antisocial behavior:

Mr. B., a 34-year-old white male, was having difficulty in sleeping. He complained about the discomfort and noise of the ward and expressed irritation at all the rules that regimented their living activities. He was verbose, sarcastic, and angry. After an evaluation it was decided that no medication would be prescribed but that he would be assigned a new sleeping area in the ward. This change necessitated a rearrangement of bedding, and Mr. B. did not like the new setting either. He began to disobey the rules of group living, had problems in accepting taking turns in bathroom use. Small objects began to disappear in his unit,

which necessitated a search.

His affect was generally annoyed, and he verbalized how he did not like rules and he had his "ways" of dealing with authority. The demanding, manipulative behavior and lack of sensitivity to the rights of others, plus the boasting of his "ability" to disobey authority are typical examples of antisocial behavior.

An example of "increasing limit-setting to disruptive actions" can be obtained from episodes found in emergency wards where individuals begin to fight, first verbally, and then escalate to physical interchanges or actions against individuals that add misery to their living conditions. The first level of "limit-setting" is a personal discussion with the "aggressor," which is followed by increased controlling conditions as the fighting escalates.

13. Special need of the mentally retarded:

Except for severely mentally retarded individuals, most retarded persons will not need special measures. Some of them may need assistance with instructions on how to get along in the shelter. Some careful explanation of what has happened and what plans have been made for the next few days may be of great relief to them.

In some cases where mental retardation is severe and accompanied by physical handicaps, it may be necessary to ask another victim to assist in daily hygiene, feeding, and sleeping activities.

14. Other illness or injuries that masquerade as retardation:

Many etiological syndromes are accompanied by symptoms of intellectual retardation. Individuals may be taking anticonvulsants if they are suffering from epilepsy and may appear to have some degree of intellectual retardation.

Disaster Worker Stress

1. Sources of stress for disaster workers:

Disaster workers are subject to three main sources of stress in their work, one arising out of the disaster itself, one from occupational pressures, and the third from organizational pressures.

At least three distinct types of disaster event stressors have been identified:

(a.) personal loss or injury: a worker is exposed to toxic substances on the job or a team member is injured or dies

(b.) traumatic stimuli: a high incidence of injury or death; gruesome sights, sounds, or activities

(c.) mission failure or human error: a situation which could seemingly be prevented or no

opportunity exists for effective action, such as an incident with no survivors

Occupational pressures include:

(a.) time pressures and work overload

(b.) physical and emotional demands on workers, due to long hours, chaotic situations, and life-or-death decisionmaking

(c.) physical properties of the work environment: hazardous work conditions, limited human resources, bad weather

Organizational pressures include:

(a.) problems in role clarity and role conflict: role ambiguity occurs among workers who are unsure of their responsibilities in the disaster; role conflict occurs when a worker must face competing demands from other personnel, the media, or the public

(b.) chain of command: when multiple response agencies are involved in the incident, it may be difficult to ascertain who is in charge

(c.) organizational conflict, either within or between organizations, over allocation of resources, responsibility, or blame

2. Effects of stress on disaster workers:

Disaster workers are normal persons who generally function quite well under the responsibilities, hazards, and stresses of their jobs. At times, when workers have been subjected to severe or prolonged stress in a disaster or traumatic situation, they may show signs of emotional and psychological strain. These reactions are normal reactions to extraordinary and abnormal situations and are to be expected under the circumstances. These reactions are usually transitory in nature and rarely imply serious mental disturbance or mental illness. Relief from stress and the passage of time usually lead to the reestablishment of equilibrium.

Physical symptoms are often the first to occur in acute stress reactions. They include increased heartbeat, respiration, blood pressure; nausea, upset stomach, diarrhea; sweating or chills; muffled hearing; headaches; soreness in muscles; lower back pain; pains in chest; faintness or dizziness.

All cognitive processes usually diminish under stress. These symptoms are often the next to appear after physical symptoms in an acute stress situation: memory problems, disorientation, slowness of thinking, mental confusion, difficulty using logic, poor concentration, loss of objectivity.

Psychological and emotional symptoms include anxiety and fear, anger and blaming, irritability, sadness, guilt, feelings of isolation and estrangement.

Behavioral symptoms include inability to express oneself verbally or in writing; hyperactivity; decreased efficiency; outbursts of anger; increased use of alcohol, tobacco or other drugs; social withdrawal and distancing.

3. Predisaster interventions for workers:

Some of the most important stress management interventions for disaster workers take place predisaster. These activities are important in preparing workers for what they will likely encounter in the disaster situation. Preparation by both the individual worker and the organization can help minimize the effects of stress when it occurs and can help individuals and the organization cope with stress in a more efficient manner. The following are some useful predisaster interventions:

(a.) Collaborative relationship between emergency services teams and mental health professionals

(b.) Orientation and training to stresses likely to be encountered and to normal reactions to such stress

(c.) Disaster planning, training, and drills, with an emphasis on the team approach and on support for team members

4. Interventions during the disaster:

(a.) During the alarm phase, as much factual information as possible about what the team will find at the scene should be relayed to the workers.

(b.) Look for stress reactions among coworkers in field operation; early identification and intervention are key in preventing worker burnout. Use mental health assistance in field operation if plans have been made to do so.

(c.) Supervisors should try to rotate workers between low-stress assignments, such as staging areas, moderate stress assignments, and high-stress tasks. They should limit workers time in high-stress assignments, such as triage or morgue, to an hour or so if at all possible.

(d.) Supervisors should ask workers to take breaks if effectiveness is diminishing or order them to do so if necessary. On breaks, try to provide workers with bathroom facilities, a place to sit or lie down, food and beverages, shelter, an opportunity to talk about their feelings.

5. Interventions after the disaster:

a. A debriefing should be arranged for all team members involved in the disaster. A debriefing is a specific, focused intervention to assist workers in dealing with the intense emotions that are common at such a time.

(b.) Plan for the let down of team members after the experience. Discuss normal stress reactions in team meetings.

(c.) If workers' reactions are severe or last longer than 6 weeks, encourage them to use professional counseling assistance. This use does not imply weakness; it simply means that the event was so traumatic it had a profound effect on those individuals.

6. Disaster workers as survivors:

Hartsough and Myers, National Institute of Mental Health (1985), emphasize that emergency and disaster workers are highly motivated and highly trained individuals. They perform strenuous, stressful, and often dangerous work. They seek to ease the suffering of victims. At the same time they put themselves at high emotional risk for stress reactions that may be harmful to themselves, their work life, and their family life.

It is important to remember and to give recognition to the inherent strengths and qualities of these workers, who embody the traits of the survivor personality:

A sense of commitment to and involvement in life

Traits of gentleness and strength, trust and caution, self-confidence and self-criticism, dependence and independence

A feeling of control over their circumstances, and the willingness to admit what can't be controlled

The ability to see change as challenge, not just a threat; the commitment to meet challenges in a way that will make them stronger persons.

Supplementary Materials

National Institute of Mental Health. *Disaster Work and Mental Health: Prevention and Control of Stress Among Workers*, by Hartsough, D., and Myers, D. DHHS Pub. No. (ADM)85-1422. Wshington, D.C.: Supt. of Docs., Govt. Print Off., 1985.

National Institute of Mental Health. *Training Manual for Human Service Workers in Major Disasters*, by Farberow, N. DHHS Pub. No. (ADM)86-538. Washington, D.C.; Supt. of Docs., U.S. Govt. Print. Off., 1986.

Shader, R., ed., *Manual of Psychiatric Therapeutics: Practical Psychopharmacology and Psychiatry*. Boston: Little, Brown and Company, 1975.

References

Baker, G. Comments on the present status and the future direction of disaster research. In: Grosser, G., Wechsler, H., and Greenblatt, M., eds. *The Threat of Impending Disaster*. Cambridge: Massachusetts Institute of Technology Press, 1964.

Barton, A. *Communities in Disaster*. Garden City: Doubleday and Company, 1969.

Cohen, R. and Ahearn, F. *Handbook for Mental Health Care of Disaster Victims*. Baltimore: The Johns Hopkins University Press, 1980.

Dohrenwend, B. and Dohrenwend, B., eds. *Stressful Life Events and Their Contexts*. New York: Prodist, 1981.

Frederick, C. Effects of natural vs. human-induced violence upon victims. *Evaluation and Change*. Special Issue: 71-75, 1980.

Kastenbaum, R. Disaster, death and human ecology. *Omega* 5(1):65-72, 1974.

Lystad, M. Innovative mental health services for disaster victims. *Children Today* 14(1):13-17, 1985a.

Lystad M. Human response to mass emergencies: A review of mental health research. *Emotional First Aid* 2(1):5-18, 1985b.

Slovic, P.; Lichtenstein, S.; and Fischoff, B. Images of disaster: Perception and acceptance of risks from nuclear power. In: Goodman, G. and Rowe, W., eds. *Energy Risk Management*. London: Academic Press, 1979, pp. 223-245.

Taylor, V. Future directions for study. In: Quarantelli, E., ed. *Disasters: Theory and Research*. Beverly Hills, Calif.: Sage Publications, 1978. pp. 251-280.

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